

Energy News

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What's Happening in the Energy Office

Baseload Electric Generation Emission Performance Standard

Reason for Rulemaking

In 2007, Washington State established a greenhouse gas (GHG) emission performance standard (EPS) for baseload electricity generation. The legislation, RCW 80.80, requires the Department of Commerce (Commerce) Energy Office to survey and determine the average emissions of GHGs for new, commercially available, and purchased natural gas-fired combined cycle combustion turbines (CCCT), reporting the value to the Legislature by June 30, 2013. Commerce is to adopt by rule the average available GHG emission value, and if it is lower than the current standard of 1100 lb. per megawatt-hour (MWh), it becomes the updated EPS for the state.

Difference between the Proposed and Adopted Rule

During the development of the EPS survey (Survey) used to establish the new EPS value, Commerce held two stakeholder meetings before issuing the proposed rule. We received and responded to comments, incorporating changes based on them into the rulemaking process. A technical subgroup of stakeholders participated in three conference calls to develop and refine the EPS survey methodology.

Commerce issued the first edition of the EPS report on November 5, 2012. We published the related notice of proposed rulemaking ("CR102") in the Washington State Register (WSR 12-21-138) on November 7, 2012. It specified a proposed EPS value for CCCTs of 980 lb. per MWh. There was a public hearing on November 28 for the proposed rulemaking, allowing comments until December 3. Commerce received a number of stakeholder comments, which resulted in minor modifications to the Survey methodology and the resulting EPS value.

On Jan. 17, 2013, after making minor changes to the Survey methodology and the EPS value, we published a supplemental notice of proposed rulemaking (WSR 13-02-098) which proposed an EPS of 970 lb. per MWh. There was a public hearing on February 6, allowing public comment until February 11. No further modifications were made to the Survey or the EPS value. The final rule ("CR103") was filed on March 6 and became effective on April 6 2013. For additional information on the EPS rulemaking follow this link: <http://www.commerce.wa.gov/Programs/Energy/Office/Utilities/Pages/EmissionPerfStandards.aspx>

A Visit with Energy Secretary Moniz

The Washington State Energy Office in Olympia was proud to host a meeting with the U. S. Department of Energy Secretary Moniz the morning of June 20th.

Inside this issue:

Energy News Overview	2
Energy Price Overview	2
Electricity, Petroleum, and Natural Gas Prices	3-4
Energy Headlines	5-6
Recent Reports on Energy and Climate	7
River and Snow Pack	7
Power Exchanged	7
Other Articles	8

Energy News Overview

After several weeks of anticipation President Obama announced on Tuesday his administration's plan to address the dangers of climate change. (see link that gives an overview of the plan at top of page 5)

The plan's three main sections will focus on regulations reducing greenhouse gas emissions from new and eventually existing power plants, further fuel economy regulations on heavy duty vehicles, and additional regulations to reduce energy use by appliances and in buildings.

Obama will bypass Congress and use his executive powers to begin the regulation of carbon dioxide and other greenhouse gas emissions. The announcement reflects the political polarization in Congress and the refusal of that body of government to pass serious laws to curb greenhouse gas emissions. The president's announcement is timely as a few months ago the atmospheric concentration of carbon dioxide passed 400 parts per million – a concentration not seen for several million years.

Key components of the Obama plan to cut U.S. greenhouse gas emissions:

- Directs EPA to establish carbon pollution standards for both new and existing power plants;
- Makes up to \$8 billion in loan guarantee authority available for a wide array of advanced fossil energy and efficiency projects ;
- Directs DOI to increase renewable energy permitting on public lands;
- Expands the President's Better Building Challenge, focusing on helping commercial, industrial, and multi-family buildings—become at least 20 percent more energy efficient by 2020;
- Sets a goal to reduce carbon pollution by at least 3 billion metric tons cumulatively by 2030;
- Partnering with industry and stakeholders to develop fuel economy standards for heavy-duty vehicles;
- Prepares the United States for the impacts of climate change;
- Lead international efforts to address global climate change.

At a more local level Puget Sound Energy received approval from the state Utilities and Transportation Commission (UTC) to increase rates about 3 percent for residential electricity customers and nearly 2 percent for natural gas customers. In other rate making news, the Yakima Herald reported that the UTC staff is recommending a much smaller rate increase than is being sought by Pacific Power.

Energy Price Overview

(charts and table on pages 3 &4)

June was much like May with WTI crude oil hovering around \$95/barrel. The oil market seems to have achieved a balance with sufficient supply and better economic news from the U.S. counter balanced by reports of lower economic output and demand from Europe and Asia. Refined petroleum product prices after increasing modestly during May, slowly declined during June with national gasoline averaging \$3.58/gal, down 7 cents for the month (CA \$4.08), and diesel at \$3.88, down 1 cents/gal (CA \$4.04). In Washington the average gasoline price declined 16 cents from a month ago to \$3.81/gal. while diesel was down 9 cents to \$4.00/gal. If we follow the fuel price trend of the past several years gasoline prices will hit a summer low as June ends then slowly rise until the first week in September after which prices will again slowly decline until the beginning of the new year. However if the West coast has refinery problems like 2012, short-term price spikes are possible: see chart on page 3.

NYMEX natural gas price (July delivery) after rising during the previous two months, declined about 30 cents to \$3.86/MMBtu. Locally the spot price for gas at Kingsgate was down nearly 50 cents: now at \$3.43/MMBtu. With gas storage at high levels and relatively mild weather thus far this summer (lower electricity demand for AC), there is no upward price pressure on natural gas.

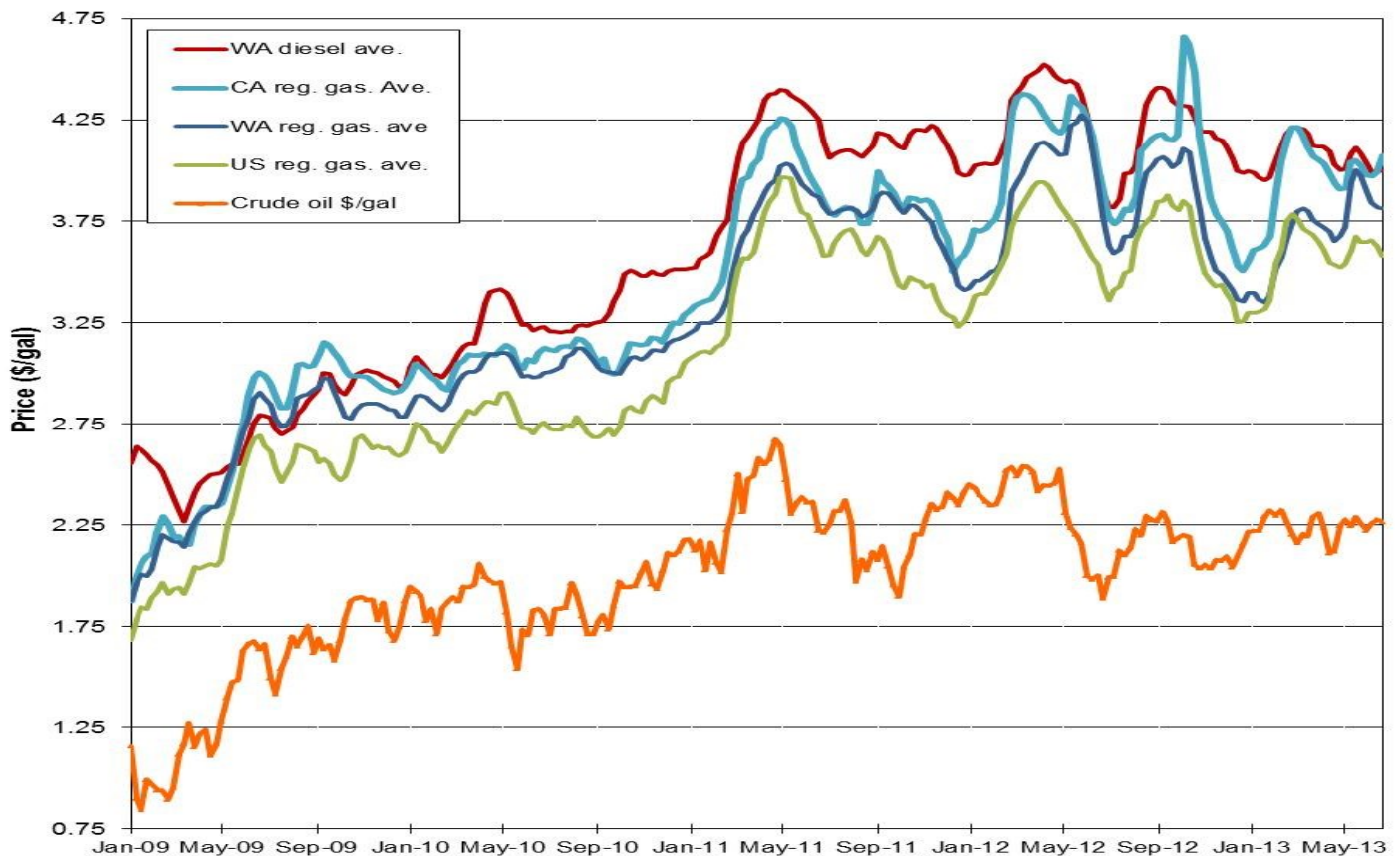
A reported gas storage injection of 95 Bcf last week is typical for this time of year. The national natural gas storage figure is at 2533 Bcf and is now 1.2% below the 5-year storage average. Gas storage in the Western states is 12% above the 5 year average.

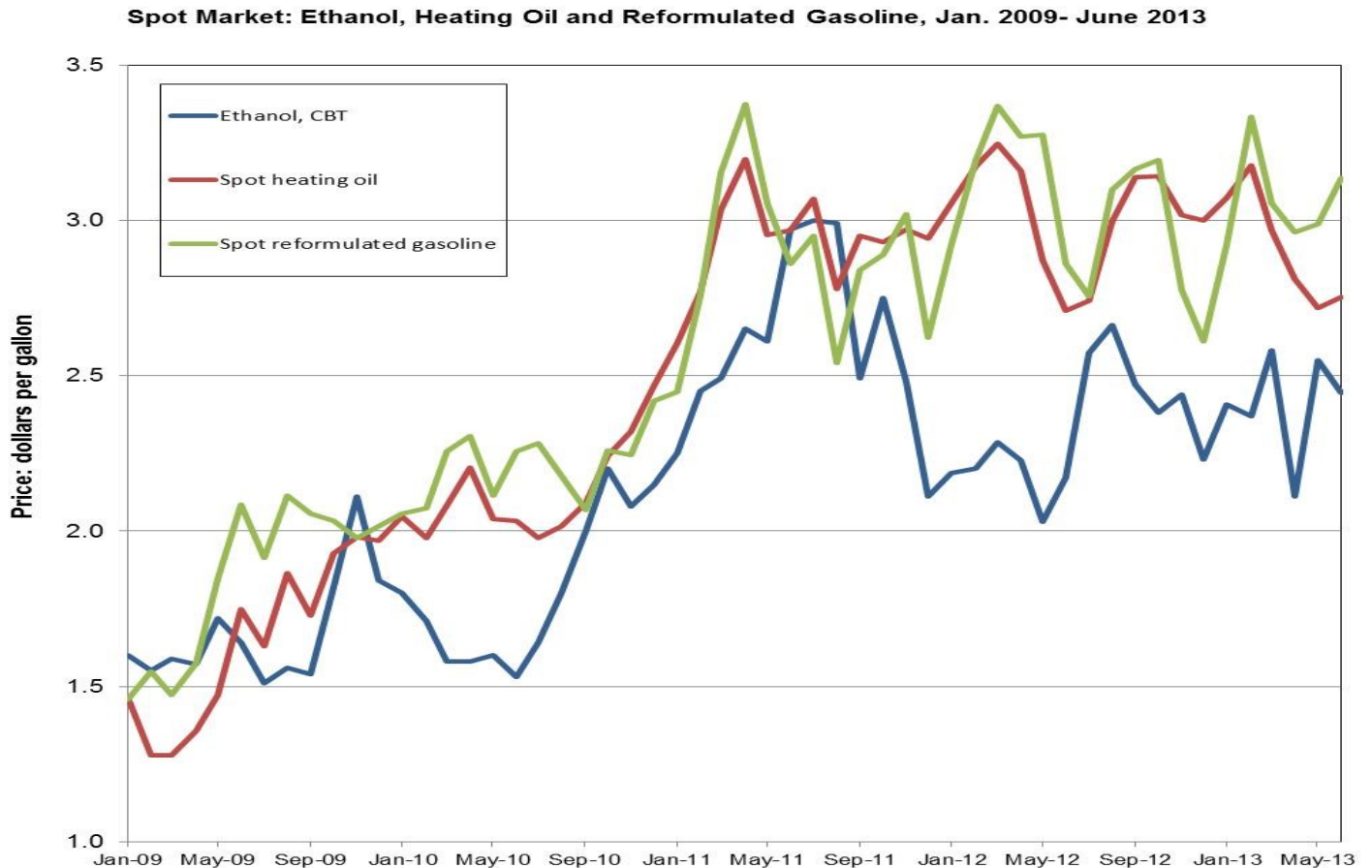
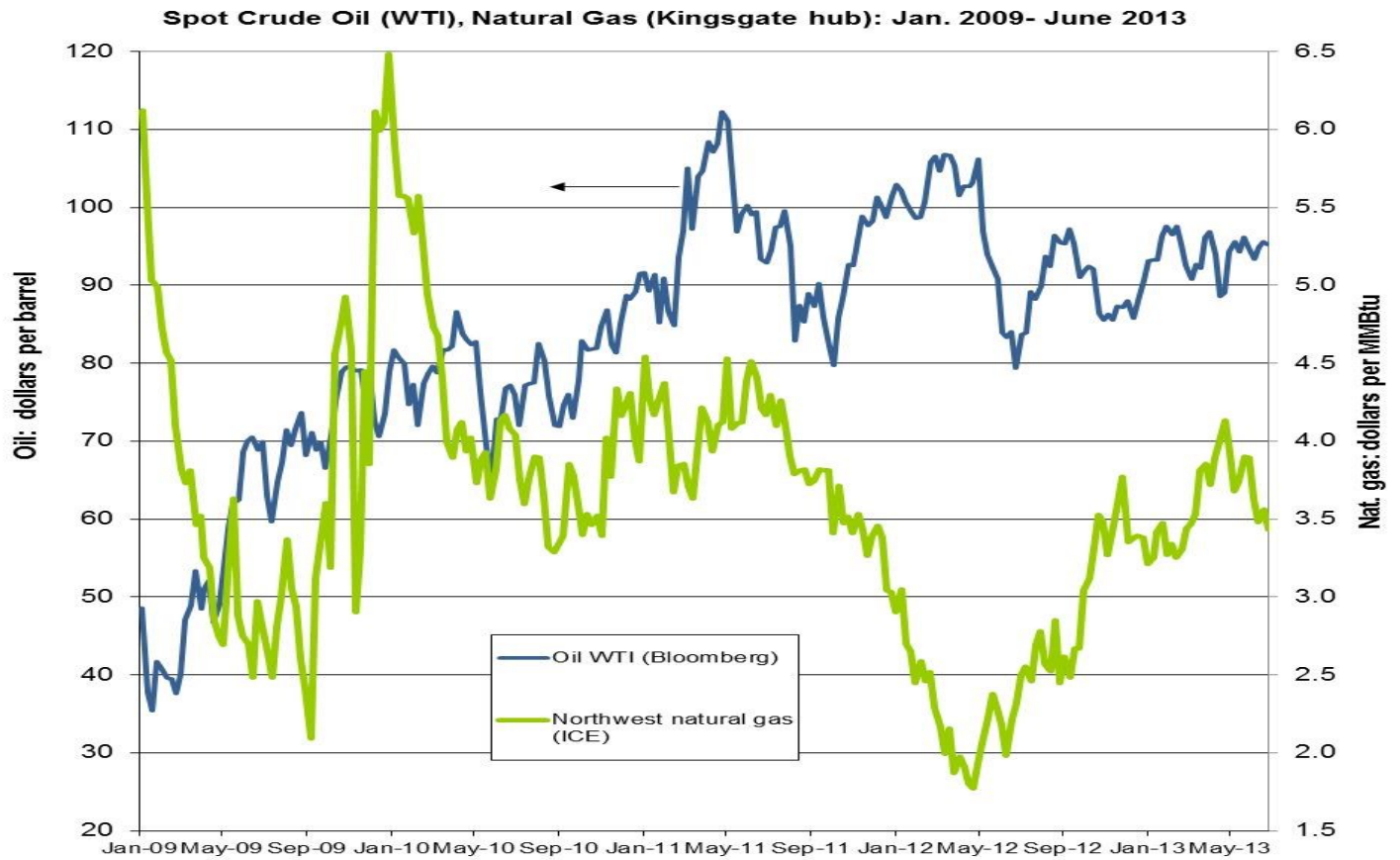
Regional electricity spot price remained steady over the past month. The spring snowpack melt has begun and hydropower generation is abundant. The (four-week) Mid C trading hub (on-peak) price ranged from \$28-44 per MWh, and the average electricity monthly spot market price was \$33.4 per MWh, \$0.1 lower than in the previous report. The Northwest river runoff forecast at the Dalles remains sufficient and stable at 93% of normal. In mid February, the river runoff forecast reached a low of 85% of normal.

Electricity, Petroleum & Natural Gas Prices

Energy Price Summary	Current	Month Ago	Year Ago
Monthly Range at Mid-C (Peak: \$ per MWh)	28-44	24-42	-1-24
Average Mid C price (Peak hours \$ MWh)	33.4	33.5	8.1
Electricity WA Retail: Apr. (cents/kWh)	7.11	7.08	7.10
Natural gas spot price (next day: \$ per million BTU)	3.43	3.90	2.49
Natural gas futures (NYMEX next month: \$ per million BTU)	3.86	4.18	2.68
E85 (national average: \$ per gallon gasoline)	4.04	4.14	3.97
Ethanol (CBT next month contract: \$ per gallon)	2.45	2.55	2.17
Corn (\$ per bushel)	5.45	6.66	6.36
Petroleum, West Texas Intermediate: (\$ per barrel)	95.2	94.9	83.7
Seattle gasoline price (\$ per gallon)	3.85	4.01	3.65
Gasoline futures (NYMEX next month: \$ per gallon)	2.84	2.79	2.64
State diesel price (\$ per gallon)	4.00	4.09	3.82
Heating oil futures (NYMEX next month: \$ per gallon)	2.90	2.86	2.56
U.S. residential propane price report (Oct.-Mar.)	NA	NA	NA
Clean Cities: Alternative Fuel Price Report, Apr. 2012	US Avg current	West Coast last qtr avg	West Coast current qtr
Ethanol E85 (\$ per gas gallon equiv.)	4.65	4.71	4.98
Biodiesel B20 (\$ per diesel gallon equiv.)	4.19	4.27	4.44
Biodiesel B99-100 (\$ per diesel gallon equiv.)	4.72	5.08	4.86
Compressed Natural Gas (\$ per gas gallon equiv.)	2.10	2.39	2.46
Propane (\$ per gas gallon equiv.)	3.77	4.04	4.18

Retail Gasoline and Diesel Prices: Jan. 2009 - June 2013





Energy Headlines - If you only have time to read a few articles—read these.

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Decoupling for Puget Sound Energy - A Step Forward for Energy Conservation in Washington State. News Release - Public News Service.

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<http://www.latimes.com/business/autos/la-fi-hy-tesla-battery-swap-20130620,0,5041778.story>

Boost for cars or bust? Ethanol debate heats up. Yahoo News, June 24.

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Car sharing grows with fewer strings attached. New York Times, June 25.

<http://www.nytimes.com/2013/06/26/business/global/one-way-car-sharing-gains-momentum.html>

Center for Climate Strategies Report: Natural gas key for dealing with climate change. Electric Power & Light.

<http://www.elp.com/news/2013/06/17/united-states-c2es-blockbuster-report-natural-gas-key-for-dealing-with-climate-change.html>

Trains full of North Dakota oil heading to the PNW. Seattle Times, June 23.

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Many Factors Will be Weighed in Considering Snohomish PUD's Proposed Mini-Dam. Everett Herald.

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Hedging Plan Reaps Millions for Chelan PUD. Wenatchee World, June 6.

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California Utility Will Close Troubled San Onofre Nuclear Plant. Sacramento Bee, June 7.

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Pacific Power May Not Get Requested Rate Hike. Yakima Herald Republic. <http://www.yakimaherald.com/news/latestlocalnews/1255292-8/pacific-power-may-not-get-requested-rate-hike>

Rate Hikes Approved for Puget Sound Energy. KIRO Broadcasting, Seattle.

<http://mynorthwest.com/174/2303521/Rate-hikes-approved-for-Puget-Sound-Energy>

Old school energy: oil, coal and natural gas

Scientists find Canadian oil is safe for pipelines. New York Times, June 25.

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BP challenges settlements in Gulf oil spill case. New York Times, June 25.

<http://www.nytimes.com/2013/06/26/business/energy-environment/bp-challenges-settlements-in-gulf-oil-spill.html?src=recg>

Sierra Club Sues over Coal Dust from Uncovered Trains in Columbia River Gorge. The Oregonian.

http://www.oregonlive.com/environment/index.ssf/2013/06/sierra_club_sues_over_coal_dus.html

Coal Industry Pins Hopes on Exports as U-S Market Shrinks. New York Times.

<http://www.nytimes.com/2013/06/15/business/energy-environment/a-fight-over-coal-exports-and-the-industrys-future.html>

Coal Exports Debate Heads to Washington D-C. Northwest Public Radio.

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Energy Headlines—continued

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Methane leaks of shale gas may undermine its climate benefits Christian Science Monitor. <http://www.csmonitor.com/Environment/Energy-Voices/2013/0623/Methane-leaks-of-shale-gas-may-undermine-its-climate-benefits>

How Shale Gas Can Slow Global Climate Change. Christian Science Monitor.

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Renewable Energy and Efficiency

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Repowering Gives New Life to Old Wind Sites. Renewable Energy World.

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Beacon Power to Build a Flywheel Plant to Keep the Grid in Good Health. Forbes Magazine.

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The Renewable Energy Rollback That Wasn't. USA Today.

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Best Time to Drive a Hybrid? When Traffic is Bad. Christian Science Monitor.

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Driving for \$1.14 per gallon. Energy.gov, June 11.

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<http://www.nytimes.com/2013/06/23/business/for-solazyme-a-side-trip-on-the-way-to-clean-fuel.html?hpw>

Energy Conservation At Large Homes is Lowest Hanging Fruit for Cutting Carbon Emissions. Forbes Magazine.

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Climate change

Bittersweet achievement on climate. New York Times, June 26.

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Obama's ambitious global warming action plan. New York Times Dot earth blog, June 25.

<http://dotearth.blogs.nytimes.com/2013/06/25/obamas-global-warming-action-plan/>

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<http://theenergycollective.com/mstepp/241446/nuclear-energy-innovation-big-and-small-important-climate-change>

Recent Reports on Energy and Climate Change

Monthly Energy Review, EIA, May 2013: <http://www.eia.gov/totalenergy/data/monthly/>

Short-term Energy Outlook, EIA May 2013.: <http://www.eia.gov/forecasts/steo/>

This Week in Petroleum. EIA, June 2013.: <http://www.eia.gov/oog/info/twip/twip.asp>

Annual Energy Outlook 2013 Final: <http://www.eia.gov/forecasts/aeo/>

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Annual Energy Outlook 2012 Early Release. Energy Information Administration, Jan. 2012
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Report on the First Quadrennial Technology Review, US Dept of Energy
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Understanding Household Preferences for Alternative- Fuel Vehicle Technologies. Mineta Transportation Institute. <http://www.transweb.sjsu.edu/project/2809.html>

River & Snow Pack Info

- Observed June stream flow at The Dalles: 78% of average.
- Observed May precipitation above The Dalles: 68% of average.
- Forecast runoff at The Dalles: June 94.5 MAF, 93% average flow
- Estimate of 2012-13 snow pack in May: NA
- Federal hydropower generation in May: 10,203 aMW, 2009-2013 average: 11,348 aMW.
- Reservoir content (Libby, Hungry Horse, Grand Coulee, Dworshak): May 81%, 5-year average: 67%.

Power Exchanged

Average flow of power during the last 30 days

- California (exported to) 5426 MW
- Canada (export to) 131 MW
- Net power exported: 5557 MW

What you may not know about LEDs (data from US DOE)

- A [light-emitting diode](#), or LED, is a type of solid-state lighting that uses a semiconductor to convert electricity into light. Today's LED bulbs can be six-seven times more energy efficient than conventional incandescent lights and cut energy use by more than 80 percent.
- Good-quality LED bulbs can have a useful life of 25,000 hours or more – meaning they can last more than 25 times longer than traditional light bulbs. That is a life of more than three years if run 24 hours a day, seven days a week.
- Unlike incandescent bulbs – which release 90 percent of their energy as heat – LEDs use energy far more efficiently with little wasted heat.
- From traffic lights and vehicle brake lights to TVs and display cases, LEDs are used in a wide range of applications because of their unique characteristics, which include compact size, ease of maintenance, resistance to breakage, and the ability to focus the light in a single direction instead of having it go every which way.
- LEDs contain no mercury, and a recent [Energy Department study](#) determined that LEDs have a much smaller environmental impact than incandescent bulbs. They also have an edge over compact fluorescent lights (CFLs) that's expected to grow over the next few years as LED technology continues its steady improvement.
- Since the Energy Department started funding [solid-state lighting R&D](#) in 2000, these projects have received 58 patents. Some of the most successful projects include developing new ways to use materials, extract more light, and solve the underlying technical challenges. Most recently, the Energy Department announced [five new projects](#) that will focus on cutting costs by improving manufacturing equipment and processes.
- The first visible-spectrum LED was invented by Nick Holonyak, Jr., while working for GE in 1962. Since then, the technology has rapidly advanced and costs have dropped tremendously, making LEDs a viable lighting solution. Between 2011 and 2012, global sales of LED replacement bulbs increased by 22 percent while the cost of a 60-watt equivalent LED bulb fell by nearly 40 percent. By 2030, it's estimated that LEDs will account for 75 percent of all lighting sales.
- In 2012, about [49 million LEDs](#) were installed in the U.S. – saving about \$675 million in annual energy costs. Switching entirely to LED lights over the next [two decades](#) could save the U.S. \$250 billion in energy costs, reduce electricity consumption for lighting by nearly 50 percent and avoid 1,800 million metric tons of carbon emissions.

In state rebates:

Puget Sound Energy lists rebates for CFL and LED lighting at <http://pse.com/savingsandenergycenter/ForHomes/Pages/Lighting.aspx>. These include eight on LED bulbs and fixtures; one on CFL bulbs and fixtures. Other utilities offering rebates are: [Snohomish PUD](#), Seattle City Light, [Tacoma Power](#), and [Avista](#). Check out Simple Steps, Smart Savings for other information at <http://www.simplestepsnw.com/>



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Innovation is in our nature.

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